

Amendments to the Drawing:

The first two of the attached sheets of drawings shows changes to Figure 1 correcting the issues identified by the Examiner with respect to Figure 1. The third sheet of drawings is a new sheet of drawings with new Figure 2 added to indicate an alternative embodiment of the invention as claimed in claim 5.

Remarks and Argument:

Claims 1-8 are pending in the present Application. By the present Amendment, new Figure 2 has been added to illustrate an alternative embodiment of the present invention. Claims 1, 3, 4 and 6 are presently Amended.

Rejections under 35 USC § 112

The Examiner rejected claims 1-8 as being indefinite due to certain terminology inconsistencies with respect to the term “one or more variable speed drives”. By the present Amendment, claims 3, 4 and 6 have been amended to correct these inconsistencies.

Rejections under 35 USC § 102 and 103

The Examiner has rejected claims 1, 2, 4(1) and 8(1) under 35 USC § 102(b) as being anticipated by Nomura (4,479,565). The Examiner specifically contends that the figures 1-9 of Nomura teach an elevator control apparatus having an AC power supply grid R,S,T connected to a variable speed motor 3 for an elevator car 9. The Examiner further states that the magnetic contacts (including coil LC) 15a-15c are operated by unit 20 or monitor 21 to open the contacts when the elevator is stopped and close the contacts when the elevator is started based on inputs from command unit 19.

The Examiner has also rejected claims 3, 4(3), 5-7 and 8(5) under 35 USC § 103 as being unpatentable over Nomura and the cited prior art and contends that the usage of solid state devices instead of contactors is known in the art.

Notwithstanding the Examiner's contentions with respect to Nomura, Applicant respectfully maintains that the system of Nomura differs from the present invention in that Nomura teaches a variable frequency drive for controlling an AC motor. In contrast, the device of the present invention is for a variable voltage drive that controls a DC motor. Claims 1 and 5 have been amended herein to more clearly claim this characteristic of the present invention.

Further, the Nomura device actually disconnects the variable frequency drive after *each*

trip – a requirement of the ASME A17.1 elevator code where AC motors are employed. In contrast, the ASME A17.1 elevator code requires the *armature* of a DC motor to be disconnected from the variable voltage drive after each trip but *not* the drive. The motor field is not disconnected after each trip of an elevator equipped with a DC motor. In fact, and as is a safety requirement, the motor field for elevators equipped with DC motors is always supplied with current even while the elevator is at rest (a safety requirement).

The use of an isolation transformer is not required with variable frequency drives as used in Nomura. However, with variable voltage drives employing SCR devices it is mandatory due the switching characteristics of the devices. To illustrate, since the DC motor field is kept powered at all times, and since its source of power is the SCR drive, the SCR drive must be powered at all times. Since the SCR drive receives its power from the isolation transformer the isolation transformer must be connected to the power mains at all times. In the present invention, the motor field, SCR drive, and isolation transformer all consume power even when the elevators are not in use.

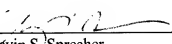
Unlike the device of Nomura, the present invention recognizes a lack of use of the elevators and removes power from the isolation transformer and thereby from the drive and motor field during these periods of low use. This is not *every* trip as Nomura teaches but only during periods of extended lack of use. Disconnecting the isolation transformer, SCR drive and motor field after each trip is not feasible as the time required to bring the three components up to operational status after power up is too long to efficiently operate an elevator system.

Conclusion:

In light of the foregoing amendments and remarks, Applicant respectfully maintains that all Claims presently pending (1- 8) are in condition for allowance and notice to that effect is respectfully requested.

Respectfully submitted,
Rory Smith et al.

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By 
Kevin S. Sprecher
Registration No. 42,165
Attorney for Applicant(s)
FROST BROWN TODD LLC
2200 PNC Center
201 East Fifth Street
Cincinnati, Ohio 45202
(513) 651-6121

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Annotated Sheet Showing Changes

Figure 1

